Abstract

Hydatidosis is an important zoonotic disease and has a worldwide distribution. Hydatid cyst is important in terms of public health and economic problems in many parts of the world. This survey was conducted to determine the prevalence of hydatid cyst in 1128 slaughtered cattle in Zabol industrial abattoir during abattoir inspection process. All the corpses were inspected in terms of hydatid cysts. Infected organs were transferred to the Parasitology lab in Faculty of Zabol Veterinary Medicine for laboratory examination. All of the obtained cysts were examined in terms of size and type of cyst and when calcified and purulent cysts were separated from liquid cysts, sediment was prepared from the rest of cysts. After draining hydatid fluid and measuring their volume and then were stained with an aqueous solution of 0.1% eosin. Then to detect whether they are fertile or sterile were examined microscopically. Out of the total slaughtered bulls, the number of 710 were Pakistan hybrid breed and 418 were Afghan hybrid breed. The infection rate of hydatidosis in Afghan hybrid breed was 25% (103 bulls). Out of this infected bulls, 90% had cysts in the liver and 41% in the lung and 31% both in liver and lung. In addition, None of the heart and kidney of this animals were not infected with hydatid cyst. Also out of the total cysts collected from 103 infected bulls, 3% were fertile, 89% sterile, 7% purulent and 1% calcified cysts. The infection rate of hydatidosis in Pakistan hybrid breed was 12% (83 bulls). Out of this infected bulls, 88% had cysts in the liver and 29% in the lung, 6% in the kidney and 23% both in liver and lung. Also out of the total cysts collected from 83 infected bulls, 6% were fertile, 64% sterile, 12% purulent and 18% calcified cysts. As a result, in both groups of slaughtered bulls, the liver has allocated the highest infection rates. The significant difference between the type of cyst and its position has been achieved too (P<0.05). The mean, standard deviation and standard error of the maximum volume of fluid in the liver and lung cysts between Afghan hybrid bulls and Pakistan hybrid bulls are significantly different (P<0.05). Also a significant statistical relation was observed between the age of bulls and the prevalence rate of infection. So the highest rate of infection was related to older bulls. The bulls do not play an important role in the survival of this infection as they carry mostly sterile cysts. Therefore, efforts should be made to control transmission of cysts from slaughterhouses. The elimination of infected corpses and offal should be conducted in the health conditions and terms and in case of using infected carcasses and offal, apply correct and safely methods.

Key words: Hydatid cyst, Slaughtered cattle, Industrial abattoir, Zabol
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Survey of the incidence of Hydatid cyst in slaughtered cattles in Zabol industrial abattoir

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